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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/311,070	05/13/1999	YOSHIHARU HIRAKATA	0756-1971	9732

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EXAMINER

NGUYEN, DUNG T

ART UNIT PAPER NUMBER

2871

DATE MAILED: 12/06/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/311,070

Applicant(s)
Hirakata et al.

Examiner
Dung Nguyen

Art Unit
2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Nov 3, 2001
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 and 14-24 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 14-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 20) ☐ Other: _____

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A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/03/2001 has been entered.

Drawings

1. Figures 20-21 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).
2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the step of forming a reflection layer on a common electrode (claim 10) must be shown or the feature(s) cancelled from the claim(s). No new matter should be entered.

Specification

3. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.
4. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). According to claim 10, a

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reflection film is formed on a common electrode; however, such limitation is not supported in the specification. Correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 10-11 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Regarding claim 10, there is no teaching in the specification and drawings how a reflection film can be formed on a common electrode. According to the specification and figures 5-6A&6B, a transparent pixel electrode is formed on a common electrode. Therefore, claim 10 contains subject matter which was not described in the specification.

Claim Rejections - 35 USC § 102

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

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8. Claims 17-19, 21 and 23 stand rejected under 35 U.S.C. 102(b) as being anticipated by Masaya et al., JP 07-230101, as stated in the final office action.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a dielectric multi-layer film comprising a metal material) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. *In re Van Guens*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

9. Claims 17-19, 21 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakajima et al., US Patent No. 6,108,056.

The above claims are anticipated by Nakajima et al. figure 8 which disclose an active-matrix LCD having a reflective layer (116), a pixel electrode (118) and a dielectric film (117) therebetween.

Claim Rejections - 35 USC § 103

10. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

11. Claims 1-9 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Masaya et al., JP 07-230101, in view of Iwaki et al., US Patent No. 5,168,383, as stated in the final office action.

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Applicants contends that Masaya et al. and Iwaki et al. do not teach, disclose, or suggest the thickness of the pixel electrode that is satisfied with $\lambda/4$. The Examiner respectfully disagrees with the applicant's viewpoint since, as stated in the final office action, the Iwaki et al. electrode thickness range (i.e, 200 to 2000Å) would be at least obvious to the claimed range (i.e, 50.5nm to 88.4nm). In other words, the thickness of the Iwaki et al. electrode having the range including the claimed range which is satisfied with $\lambda/4$.

Accordingly, the rejection of claims 1-9 stand.

12. Claim 14-16, 21, 22 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakajima et al., US Patent No. 6,108,056 , in view of Sato et al., US Patent No. 5,461,501.

Regarding claims 24, Nakajima et al. disclose the claimed invention as described above except for the use of aluminum (Al) based materials for the reflection layer as well as a reflection area of the reflection layer is greater than an electrode area of the pixel electrode. Sato et al. disclose an aluminum shading layer (111) can be formed under a pixel electrode (figure 9) and a reflection area of the reflection layer is greater than an electrode area of the pixel electrode (figure 10). Therefore, it would have been obvious to one skill in the art to form the Nakajima et al. reflection film by aluminum and having an area greater than an electrode area of the pixel electrode as shown by Sato et al. in order to reduce a photo-current in an LCD display (col. 10, ln. 59).

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Response to Arguments

13. Applicant's arguments filed 10/15/2001 have been fully considered but they are not persuasive as stated above.


14. Applicant's arguments with respect to claims 14-16, 21-22 and 24 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Dung Nguyen whose telephone number is (703) 305-0423.

DN
11/30/2001


William L. Sikes
Supervisory Patent Examiner
Group 2871